
State of Repair

The state of repair of freeways, local roadways and transit affects travelers in two respects. The more obvious impact is on the quality of travel. The second impact, which is not directly reflected in the indicators in this report, relates to cost. When roadways and transit vehicles are allowed to fall into disrepair, it usually ends up costing more to repair them than it would have cost to perform routine maintenance — just as deferring maintenance on a house often results in a more expensive repair.

For freeways and local roadways, pavement condition is used as an indication of the state of repair. The condition of the transit system is measured by the average distance vehicles are driven between vehicle breakdowns that cause a disruption in service; the unscheduled repairs are known as service breakdowns.

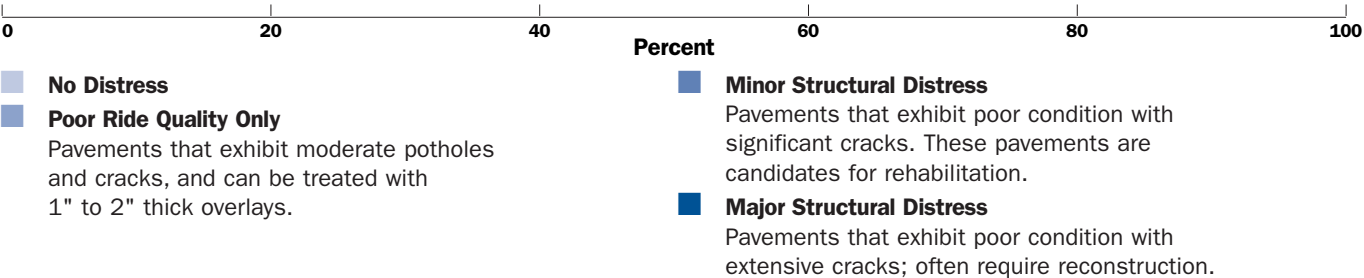
Condition of Pavement on State Highways Worsens in 2005; One-Quarter of Roadway Miles Show Signs of Major Structural Distress

- Pavement condition deteriorated on state highways in the Bay Area in 2005, as the share of roads with no distress slipped five percentage points to 68 percent, and the portion showing major structural distresses rose five percentage points to 25 percent.
- At 68 percent, the share of roads with no distress is at its lowest point in the last five years. At the other end of the scale, the percentage of roadway miles showing major structural distress — 25 percent — is at its highest point in five years. Fully one-quarter of the lane miles on Bay Area state highways now show signs of serious damage, whereas as recently as 2001, just one mile in seven fell into this category.

Note:
State-owned roadways are commonly called state highways and include freeways, rural highways (such as Route 1 along the Pacific Coast, Route 29 in Napa and Route 116 in Sonoma) and state-owned urban and suburban arterials (such as San Pablo Avenue in Alameda and Contra Costa counties and Skyline Boulevard in San Mateo County).

Pavement Conditions for State Highways in the Bay Area, 2001–2005

2005	68%	2%	5%	25%
2004	73%	1%	6%	20%
2003	74%	2%	6%	18%
2002	76%	2%	7%	15%
2001	75%	3%	8%	14%



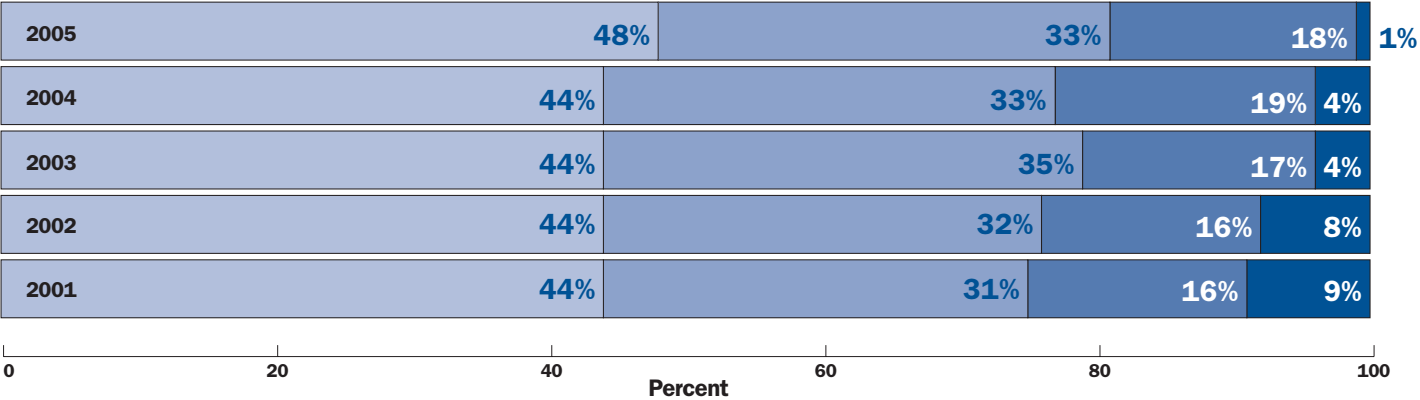
Source: Caltrans
Includes state-owned freeways and non-freeway roadways. Excludes state-owned bridges.
Total Bay Area lane miles in 2001, 2002, and 2003 was 5,960. Total in 2004 and 2005 was 5,980.

- The state has not been able to sustain investments in road repair following a big infusion of cash in fiscal year 2000-01 to repair damaged roads and perform preventive maintenance. That sizable one-time investment appreciably improved the condition of state highways in the region. From 2000 to 2001, the share of roadways showing no distress jumped to 75 percent (from 64 percent), and the percentage of roadways with major structural distress fell to 14 percent (from 25 percent). But since then, the share of roads in this latter group has risen every year, culminating in the five-percentage-point jump from 2004 to 2005.
- The \$19.9 billion transportation bond (Proposition 1B) passed by voters in November 2006 includes \$500 million for state highway maintenance. Caltrans plans to use this money to accelerate repair work on some of the neediest and costliest state highway segments in California. But this infusion of new funds is not enough to significantly improve roadway conditions overall.

Pavement Index Shows Modest Improvement, But Bay Area Pavement Quality Remains in Danger Zone

- The region’s average pavement condition index (PCI) score last year rose two points to 64 out of a maximum possible 100. The uptick reverses a three-year slide in average PCI scores. But despite this slight improvement in 2005, 18 percent of the Bay Area’s nearly 19,500 centerline miles of local streets and roads are in “poor” or worse condition, and fully one-third is rated only “good” or “fair.”
- The region’s average PCI score continues to hover around 60, which is the point when pavement begins deteriorating rapidly. This puts pressure on cities and counties to invest in both preventive maintenance to keep the good roads above 60 and in rehabilitation to bring poorer roads out of the danger zone. Projections made for the Bay Area’s long-range *Transportation 2030*

Pavement Conditions for Local Roadways, 2001–2005 (total miles)¹



Excellent (PCI = 90–100) or Very Good (PCI = 75–89)
Pavements that have no distress and require mostly preventive maintenance

Good (PCI = 60–74) or Fair (PCI = 45–59)
Pavements in this middle range offer acceptable ride quality, though road surfaces are becoming worn to the point where rehabilitation is needed to prevent rapid deterioration.

Poor (PCI = 25–44) or Very Poor (PCI = 0–24)
Pavements that have extensive amounts of distress and require major rehabilitation or reconstruction

No Data

2005 Bay Area PCI = 64
The regional PCI score is an average of the scores of all participating jurisdictions, weighted by lane miles.

Source: Metropolitan Transportation Commission
98 cities and nine counties reporting
PCI = pavement condition index, a measure of pavement distress
64 of 107 jurisdictions provided updated databases to MTC for 2005. For other jurisdictions, MTC used its pavement management system software to project 2005 conditions based on the latest data available.

¹ For the years 2001 through 2004, pavement condition was calculated based on centerline miles. For 2005, pavement condition was calculated based on lane miles.

Plan, adopted in 2005, show that between now and 2030, the Bay Area’s cities and counties face a combined shortfall of more than \$6 billion for maintaining and restoring local streets and roads.

- Fortunately, Propositions 1A and 1B, passed by California voters in November 2006, will help bridge some of this

funding gap. Proposition 1A closed a loophole that allowed the state Legislature to divert funds away from transportation, while Proposition 1B — the \$20 billion transportation infrastructure bond — will deliver about \$375 million over 10 years for local street and roads in the Bay Area.

A Closer Look

- Cities with the best and worst average pavement conditions in 2005 are shown below. Often a jurisdiction’s low average pavement condition rating is the result of a roadway maintenance budget that is insufficient to cover a backlog of needs.
- No Bay Area city or county scored in the excellent range for 2005. The top-ranked jurisdiction is the Contra Costa County city of Oakley, where the PCI on local streets averaged 86, up two points from 2004. The low-

est-ranked pavement was found in unincorporated Sonoma County, which for the second consecutive year recorded an average PCI score of 44.

- The San Mateo County city of Colma logged the biggest year-to-year improvement in 2005, with its average PCI score jumping 31 points to 78. About one-quarter of Colma’s nine miles of city streets received a new asphalt overlay in 2005. (The complete 2005 rankings of Bay Area PCI scores can be found in Appendix D.)

Bay Area Jurisdictions With Best and Worst Pavement Conditions, 2005

Best	2005 PCI ¹ (out of 100)	Worst	2005 PCI ¹ (out of 100)
1. Oakley	86	97. Napa County (unincorporated)	53
2. Los Altos	85	Suisun City	53
3. Contra Costa County (unincorporated)	83	99. Oakland	52
Dixon	83	100. City of Napa	51
Sunnyvale	83	El Cerrito	51
6. City of Santa Clara	82	Rio Vista	51
Emeryville	82	103. Larkspur	50
Foster City	82	104. Orinda	48
9. Brentwood	81	105. Marin County (unincorporated)	47
Gilroy	81	Richmond	47
		107. Sonoma County (unincorporated)	44

Source: Metropolitan Transportation Commission

107 of 109 jurisdictions reporting

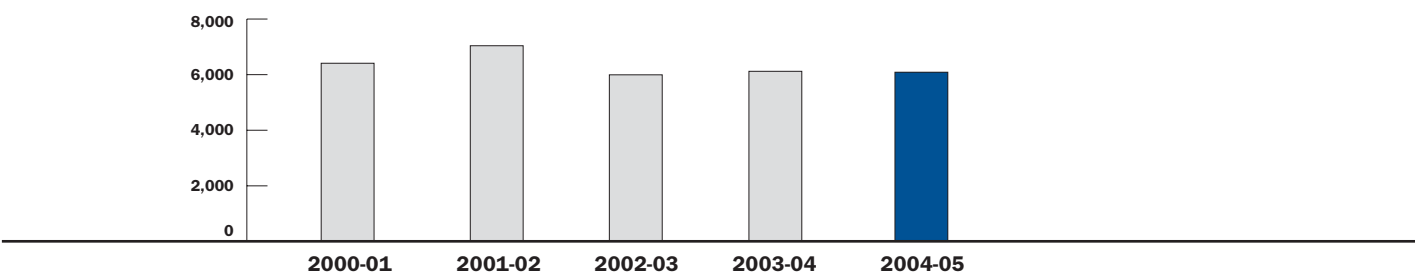
¹ PCI = pavement condition index; PCI of 100 = Excellent

Rail Reliability Improves Significantly, But Technical Difficulties Hurt Bus Performance

- The Bay Area’s rail operators reported a major improvement in a key measure of reliability in fiscal year (FY) 2004-05. The average distance traveled between service calls for rail increased 30 percent, to 7,890 miles. Meanwhile, the average distance traveled between bus service calls decreased 7 percent, in large part due to difficulties operators had with new technology buses. A service call occurs when a bus or train requires repair and cannot complete scheduled service.
- The decrease in the number of miles traveled by buses between service calls was largely due to decreases in reliability for Muni and Golden Gate Transit service. Golden Gate was plagued with difficulties related to new technology buses designed to reduce bus emissions. The new fleet ran into major service reliability problems in 2005, but many of these issues appear to be rectified now. Muni experienced similar problems with new, low-emission buses in 2005.

Service Calls — Six Largest Bay Area Transit Operators, Fiscal Years 2000-01 – 2004-05

	Average Miles Between Service Calls					FY 2003-04– 2004-05	FY 2000-01– 2004-05
	2000-01	2001-02	2002-03	2003-04	2004-05		
Rail ¹	6,920	6,470	7,250	6,060	7,890	+30%	+14%
Bus ²	6,310	7,150	5,760	6,130	5,680	–7%	–10%
Rail and Bus ³	6,410	7,040	5,990	6,120	6,090	–<1%	–5%



Source: Transit Operators

A service call occurs when a vehicle requires repair and cannot complete scheduled service.

Reliability improves as the average number of miles between service calls increases.

¹Includes BART, VTA light rail, Muni light rail

²Includes AC Transit, SamTrans, Valley Transportation Authority (VTA), Golden Gate Transit

³Combined “Rail and Bus” average is weighted by revenue vehicle miles of service.

- Because buses account for approximately 82 percent of regional transit service (measured in revenue service miles), the considerable improvements in rail performance are offset, on a relative basis, by the decline in bus performance. As a result, the weighted average number of miles between service calls for the bus and rail operators combined was almost unchanged between FY 2003-04 and FY 2004-05. Looking at the longer term, reliability of service (as measured by distance traveled between service calls) has declined by 5 percent since FY 2000-01.